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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ramon Tam  
Serial No.: 10/800,293  
Conf. No.: 8247  
Filed: 3/12/2004  
For: A COLLAPSIBLE ROLLING  
SUPPORT STAND  
Art Unit: 3632  
Examiner: Marsh, Steven M.

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4/7/08  
Date:   
Registration No. 46174

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Appr. February 20, 1998 Attorney for Applicant(s)

TRANSMITTAL OF APPEAL BRIEF

MS Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on November 6, 2007.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$510.00

(complete (a) or (b) as applicable)

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

Extension fee for response within first month:

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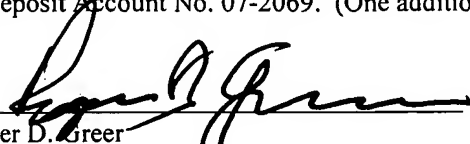
( ) A check in the amount of \$ \_\_\_\_\_ for the extension of time fee is enclosed.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

(X) A check in the amount of \$ 510.00 is enclosed for filing the Appeal Brief.

(X) The Commissioner is hereby authorized to charge any additional fee which may be required, or credit any overpayment to Deposit Account No. 07-2069. Should no proper payment be enclosed, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 07-2069. (One additional copy of this Notice is enclosed herewith.)

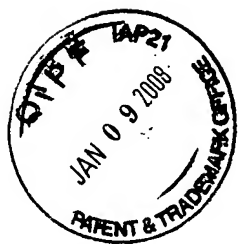
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Date

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Appr. February 20, 1998 Attorney for Applicant(s)

**APPELLANT'S BRIEF ON APPEAL PURSUANT TO 37 CFR § 41.37**

This Appeal Brief is in support of Applicant's Notice of Appeal dated

November 6, 2007..

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## REAL PARTY IN INTEREST

Credo Technology Corporation.

## **RELATED APPEALS AND INTERFERENCES**

None.

## **STATUS OF CLAIMS**

Claims that are pending, rejected and appealed are 1-12 and 13-28. Of those claims, claims 5, 6, 8, 9, and 24-26 are objected to as being dependent upon a rejected base claim and are indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 12 has been cancelled and claim 11 has been allowed.

## **STATUS OF AMENDMENTS AFTER FINAL**

No amendments have been made that have not been considered by the examiner.



## SUMMARY OF CLAIMED SUBJECT MATTER

The present invention generally concerns a collapsible rolling stand for the construction trades and the like, for transporting a relatively heavy portable table saw to a work site, for example. More particularly, the independent claims, which are claims 1, 20, 27 and 28 as well as dependent claim 17 are annotated with the reference numbers as well as the specification for the preferred embodiment shown in Figs. 1-4. Page numbers of the specification and line numbers are designated Pg. 4/8-12, for example, indicating the specification text on page 4 from lines 8 through 12.

1. A collapsible rolling stand (10, Pg 4/21-5/20) for use with an elongated normally horizontally oriented object (12, Pg 5/9-20) attached thereto, said stand being supported by a ground surface and having a front end portion (including 30, Pg 5/21-6/3) and a rear end portion (including 50, 43, Pg 6/26-28), and being capable of being manipulated between open (Fig. 4) and closed (Fig. 1) positions, wherein the object is generally vertically oriented when the stand is closed, and wherein the object is generally horizontally oriented when the stand is in its open position, said stand comprising:

a top frame (14, Pg 5/9-12) having a generally planar portion being configured to have the object secured thereto, said top frame planar portion being oriented in a generally horizontal position when said stand is in its open position and a generally vertical position when said stand is moved to its closed position;

a folding mechanism (20, Pg 5/21-7/2) supporting said top frame, including at least one handle (54, Pg 6/24-28) operatively connected to one end portion of a pair of spaced apart elongated first members (22, Pg 5/21-6/2) that have opposite end portions that include points that contact the ground surface and a pair of spaced apart second members (42, Pg 6/9-13) each having wheels (48, Pg 6/9-13) for enabling a user to roll said stand on the ground surface, said first and second members being pivotally connected to one another and configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to further separate said forward contact point from said rear wheels and move said stand from said closed position to said open position wherein said top frame planar portion is substantially horizontal. (Pg 7/3-24)

17. A stand (10) as defined in claim 14 wherein said spring is a tension spring (64, Pg 8/1-4) having one end connected to said second member (42, Pg 8/1-4) and its other end connected to said first member (22) Pg 8/1-4), said spring being loaded into tension as said stand moves toward its open position.

20. A collapsible rolling stand (10, Figs. 1-4; Pg 4/21-5/20) for an elongated normally horizontally oriented heavy object (12, Pg 5/9-20) attached thereto, said stand being supported by a ground surface and having a front end portion (including 30, Pg 5/21-6/3) and a rear end portion (including 50, 43, Pg 6/26-28), and being capable of being manipulated between open (Fig. 4) and closed (Fig. 1) positions, wherein the object is generally vertically oriented when the stand is closed, and wherein the object is

generally horizontally oriented when the stand is in its open position, said stand comprising:

- a top frame portion (14, Pg 5/9-12) generally defining a plane (including 28, 30, 32, Pg 5/27-6/2) and being configured to have the object secured thereto, said top frame portion being oriented in a generally horizontal position when said stand is in its open position and a generally vertical position when said stand is moved to its closed position;

- a main side strut (22, Pg 5/21-6/2) on each side of said stand pivotally connected to a rear portion of said top frame portion (24, Pg 5/24-26), said side strut extending toward the ground surface and having a ground engaging front contact point;

- a rear leg (42, Pg 6/9-13) having a pivotal connection for connecting to each said side strut at a point intermediate the ends of said main side strut, each rear leg having a wheel (48, Pg 6/9-13) connected to a distal end portion of said rear leg and an extension (44, Pg 6/3-13) located forwardly of said pivotal connection at a predetermined angle relative to the lengthwise direction of said rear leg;

- a link member (58, Pg 6/24-7/2) pivotally attached to the distal end of said rear leg extension and to said frame portion;

- at least one handle (54, Pg 6/24-28) connected to one of said top frame portion or said main side struts;

- a locking mechanism (40, Pg 6/3-16) for releasably holding said stand in at least the closed position;

wherein when said stand is in its closed position, actuating said locking mechanism enables said rear leg to pivot about said pivotal connection causing the weight of the object to move said wheel a short distance away from said top frame portion, further movement of said stand in the rearward direction causing said rear leg and wheel to rotate toward the rear of said stand to the open position where the object is oriented in a horizontal position. (Pg 7/3-24)

27. A collapsible rolling stand (10, Figs. 1-4; Pg 4/21-5/20) for use with an elongated normally horizontally oriented heavy object (12, Pg 5/9-20) attached thereto, said stand being supported by a ground surface and having a front end portion (including 30, Pg 5/21-6/3) and a rear end portion (including 50, 43, Pg 6/26-28), and being capable of being manipulated between open (Fig. 4) and closed (Fig. 1) positions, wherein the object is generally vertically oriented when the stand is closed, and wherein the object is generally horizontally oriented when the stand is in its open position, said stand comprising:

a top frame portion (14, Pg 5/9-12) being configured to have the object secured thereto, said top frame portion being oriented in a generally horizontal position when said stand is in its open position and a generally vertical position when said stand is moved to its closed position;

a folding mechanism (20, Pg 5/21-7/2) supporting said top frame portion, including at least one handle (54, Pg 6/24-28) operatively connected to one end portion of a pair of spaced apart elongated first members (22, Pg 21-6/2) that have opposite end

portions that include points that contact the ground surface and a pair of spaced apart second members (42, Pg 6/9-13) each having wheels (48, Pg 6/9-13) for enabling a user to roll said stand on the ground surface, said first and second members being pivotally connected to one another and configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to further separate said forward contact point from said rear wheels and move said stand from said closed position to said open position wherein said top frame portion is substantially horizontal, said first and second members being configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to move said stand from said open position to said closed position wherein said top frame planar portion is in a generally vertical orientation. Pg 7/25-8/4)

28. A collapsible rolling stand (10, Figs. 1-4; Pg 4/21-5/20) for use with an elongated normally horizontally oriented object (12, Pg 5/9-20) attached thereto, said stand being supported by a ground surface and having a front end portion (including 30, Pg 5/21-6/3) and a rear end portion (including 50, 43, Pg 6/26-28), and being capable of being manipulated between open (Fig. 4) and closed (Fig. 1) positions, wherein the object is generally vertically oriented when the stand is moved to its closed position, and wherein the object is generally horizontally oriented when the stand is in its open position, said stand comprising:

a folding mechanism (20, Pg 5/21-7/2) supporting the object, including at least one handle (54, Pg 6/24-28) operatively connected to one end portion of a pair of spaced apart first members (22, Pg 5/21-6/2) that have opposite end portions that include points that contact the ground surface ends and a pair of spaced apart second members (42, Pg 6/9-13) each having wheels (48, Pg 6/9-13) for enabling a user to roll said stand on the ground surface, said first and second members being pivotally connected to one another and configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to further separate said forward contact point from said rear wheels and move said stand from said closed position to said open position wherein the object is substantially horizontal. (Pg 7/3-24)

## **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

**1. Whether the §102(b) rejection of claims 1-4, 7, 10, 13, 18-23, 27 and 28 as being anticipated by the Gress Patent 5, 087,013 should be reversed because Gress fails to show all of the elements of these claims.**

**2. Whether the §102(b) rejection of claims 1 and 14-16 as being anticipated by the Cunningham Patent 5,927,745 should be reversed because Cunningham fails to show all of the elements of these claims.**

**3. Whether the §103(a) rejection of claim 17 should be reversed as being an improper rejection based upon Cunningham.**

## ARGUMENT

1. **Claims 1-4, 7, 10, 13, 18-23, 27 and 28 are Improperly Rejected Under 35 U.S.C 102(b) as Being Anticipated by Gress Because Gress Fails to Show all of the Elements of These Claims.**

An invention is anticipated if the same device, including *all* the claim limitations, is shown in a single prior art reference. Every element of the claimed invention must be literally present, arranged as in the claims in question. *Scripps Clinic and Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983). The *identical* invention must be shown by the prior art reference in as much detail as is contained in the patent claim. *Richardson v. Suzuki Motor Co., Ltd.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989); *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1267 (Fed. Cir. 1991); *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780 (Fed. Cir. 1985).

While Gress has a broadly similar appearance and is directed to a foldable stand for a threading machine, it certainly fails to anticipate, teach or suggest claim 1, for example, because it operates substantially differently than the stand set forth in claim 1. By way of background, the specification at page 4, lines 21 through page 5, line 8 describes the stand in general and is set forth below:



The various embodiments of the collapsible rolling stand of the present invention have the common design feature that includes a top frame upon which an object such as a table saw or the like can be attached and a folding mechanism that includes at least first and second members that are pivotable relative to one another and which resemble a scissor movement, with the center of gravity of the object that is attached to the top frame being located between the ground contacting ends of each of the first and second members. This enables the weight of the object to assist the unfolding of the stand which causes the object to move from a generally vertically oriented position to a generally horizontal position. Because the center of gravity of the object is between the ground contacting ends of the first and second members, the stand can be easily folded back to the collapsed generally vertical position without significant exertion by a user performing either operation. Unlike many prior art rolling stands, the user does not have to provide any heavy lifting in order to set up or break down the stand with the object attached to it. In this regard, a user can completely set up or knock down the stand by holding the handle and gently urging it in one direction or the other to open or close it. It is only necessary to manipulate a locking mechanism to release it from a closed position and to lock it when it has been moved from an opened position to its closed position.

Gress totally fails to operate in this described manner and the subject matter of claim 1 defines a rolling stand in language that clearly distinguishes over Gress. Claim 1 is directed to a collapsible rolling stand for use with an elongated normally horizontally oriented object attached thereto, wherein the object is generally vertically oriented when the stand is closed and in a generally vertical orientation and wherein the object is generally horizontally oriented when the stand is in its open position. This preamble in and of itself distinguishes over Gress as *Gress has its object, which is the threading machine generally **horizontally oriented in both the open and closed position.*** The closed position is shown in Fig. 3 where it is virtually in the same position as when it is opened which is shown in Fig. 2.

Moreover, Fig. 4 illustrates that there is are projections 80 which are described to "extend from the wheels in the rearward direction with respect to the working end of the threading machine 12 and are closely spaced and generally parallel to underlying surface S. Accordingly, should a workman introduce a work piece W into the threading machine which would extend to the left of the machine as seen in Fig. 2 to such an extent that the weight of the workpiece would tend to tilt the stand and threading machine counterclockwise relative to the axis of wheel axis 64, *projections 80 will engage the underlying surface as to restrain such tilting displacement* and thus avoid potential damage to the machine and/or injury to a workman which could occur if such tilting were not so restrained." This is set forth in column 8, lines 48-62.

*Clearly, the design of Gress is to prevent the object from reaching a vertical orientation.* Not only is this distinction made in the preamble of claim 1, but the stand is stated to comprise, *inter alia*, “a folding mechanism supporting said top frame . . . said first and second member being pivotally connected to one another and configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to further separate said forward contact point from said rear wheels and move said stand from said closed position to said open position where said top frame planar portion is substantially horizontal.”

Since the Gress object is never generally vertically oriented when the stand is closed, it cannot anticipate, teach or suggest a folding mechanism as defined in this claim. Moreover, it simply does not operate in the manner of the stand set forth in claim 1. *Gress has a **hand crank 40** that is used to fold and unfold the stand* as is described at column 7, line 25-49 and column 8, lines 21-47. In fact, in column 8, lines 30-37, it is described that it is advantageous that the jackscrew arrangement enables the threading machine to be elevated to any desired position above the underlying support surface up to the position shown in Fig. 2 so as to provide a working position most suitable to a given workman. *This clearly indicates that there is no movement between a vertical orientation of the object when the stand is in the closed position and a horizontally oriented object when the stand is in its opened position.*

The arguments that have been advanced with regard to allowability of claim 1 equally applies to claim 20.

Claim 27 has been amended to place it in independent form and also further defines the stand in language wherein said first and second members are configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to move said stand *from said open position to said closed position* where said top frame portion is in a generally vertical orientation as well as during moving said stand *from said closed to said open position*. This is clearly supported by the language set forth above from pages 4 and 5 of the specification and indicates that the configuration is such that a user is not required to exert more than a small force to move the stand between its opened and closed positions. This feature is similarly claimed in allowable claim 14 which has been amended to more properly depend from claim 1.

Claim 28 is similar to claim 1 in many respects and the arguments that have been made with regard to the allowability of claim 1 are believed to equally apply to claim 28.

**2. Claims 1 and 14-16 are Improperly Rejected Under 35 U.S.C 102(b) as being anticipated by Cunningham Because Cunningham Fails to Show all of the Elements of These Claims.**

With regard to the rejection of claims 1 and 14-16 as being anticipated by Cunningham, Cunningham clear does not anticipate, teach or suggest claim 1 because it does not disclose: “a collapsible rolling stand for use with an elongated normally horizontally oriented object attached thereto, said stand being supported by a ground surface and having a front end portion and a rear end portion, and *being capable of being manipulated between open and closed positions, wherein the object is generally vertically oriented when the stand is closed, and wherein the object is generally horizontally oriented when the stand is in its open position.*” Additionally, it does not anticipate, teach or suggest the claim element: “a top frame having a generally planar portion being configured to have the object secured thereto, *said top frame planar portion being oriented in a generally horizontal position when said stand is in its open position and a generally vertical position when said stand is moved to its closed position.*” Finally, it does not anticipate the claim element: “a folding mechanism . . . *configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to further separate said forward contact point from said rear wheels and move said stand from*

*said closed position to said open position wherein said top frame planar portion is substantially horizontal.*

Cunningham simply does not have structure or functionality that remotely anticipates, teaches or suggests claim 1 and therefore, this rejection should be reversed. Claims 14-16 are dependent claims that depend from claim 1, they should also be allowable

**3. Claim 17 Should be Reversed as Being an Improper Rejection Under  
35 U.S.C. § 103 based upon Cunningham.**

Claim 17 is a dependent claim that is dependent upon 14 which in turn depends from claim 1. Since claim 17 necessarily include the subject matter of claim 1, which should be allowed for the reasons set forth above, it is strongly believed that claim 17 is not taught nor suggested by Cunningham.

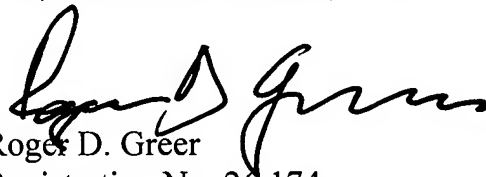
## CONCLUSION

The dependent claims not specifically addressed necessarily incorporate the features of the claims from which they depend in addition to defining other features and/or functionality and also should be allowed.

For the above reasons, applicant requests the Board to reverse the outstanding rejections and allow all pending claims. The application should then be permitted to pass to issue.

Respectfully submitted,

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## CLAIMS - APPENDIX

1. A collapsible rolling stand for use with an elongated normally horizontally oriented object attached thereto, said stand being supported by a ground surface and having a front end portion and a rear end portion, and being capable of being manipulated between open and closed positions, wherein the object is generally vertically oriented when the stand is closed, and wherein the object is generally horizontally oriented when the stand is in its open position, said stand comprising:

a top frame having a generally planar portion being configured to have the object secured thereto, said top frame planar portion being oriented in a generally horizontal position when said stand is in its open position and a generally vertical position when said stand is moved to its closed position;

a folding mechanism supporting said top frame, including at least one handle operatively connected to one end portion of a pair of spaced apart elongated first members that have opposite end portions that include points that contact the ground surface and a pair of spaced apart second members each having wheels for enabling a user to roll said stand on the ground surface, said first and second members being pivotally connected to one another and configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to further separate said forward contact point from said rear wheels and move said stand from said closed position to said open position wherein said top frame planar portion is substantially horizontal.

2. A stand as defined in claim 1 wherein said folding mechanism further comprises:

said first members are located on each side of said stand and are operatively connected to and pivotable relative to a rear portion of said top frame planar portion;

each of said second members having a pivot connection to one of said first members at a point intermediate the ends of said first member, each second member having one of said wheels connected to a rearward end portion thereof and an extension located forwardly of said pivot connection at a predetermined angle relative to the lengthwise direction of said second member;

a link member pivotally attached to the distal end of said extension and to said top frame planar portion;

a handle connected to one of said top frame planar portion or said first members;

a locking mechanism for releasably holding said stand in at least the closed position;

wherein when said stand is in its closed position, actuating said locking mechanism enables said second member to pivot about said pivot connection causing the weight of the object to move said wheels a short distance away from said top frame planar portion, further movement of said stand in the rearward direction causing said second members and wheel to rotate toward the rear of said stand to the open position where the top frame planar portion is oriented in said substantially horizontal position.

3. A stand as defined in claim 2 wherein said handle comprises a cross member that extends between and is connected to both of said first members.

4. A stand as defined in claim 3 wherein said cross member is positioned at an elevation below said top frame planar portion and has a curved shape upwardly from each of said first members.

5. A stand as defined in claim 2 wherein said first members have a generally transverse downward extension beyond said pivot connection to said top frame member, with said handle being connected to the ends of each downward extension.

6. A stand as defined in claim 1 wherein said first members and said handle are an integrally formed unitary structure.

7. A stand as defined in claim 2 wherein said predetermined angle is within the range of about 40 to about 90 degrees.

8. A stand as defined in claim 2 wherein said locking mechanism comprises a sliding pin having an operating knob operatively attached to one of said first and second members that is configured to operatively engage the other of said first and second members when said stand is in at least its closed position .

9. A stand as defined in claim 8 wherein said sliding pin is biased toward engagement.

10. A stand as defined in claim 2 wherein said first members have a generally transverse extensions at said ground engaging opposite ends and at least one front end bridge interconnecting said opposite ends.

13. A stand as defined in claim 1 wherein the object is a portable circular saw.

14. A stand as defined in claim 1 further comprising a spring for biasing said stand toward its closed position when in its open position, such that an operator is not required to exert more than a small force to move said stand to its closed position.

15. A stand as defined in claim 14 wherein said small force is a small fraction of the weight of the object.

16. A stand as defined in claim 14 wherein said spring is substantially unloaded when the stand is in its closed position.

17. A stand as defined in claim 14 wherein said spring is a tension spring having one end connected to said second member and its other end connected to said first member, said spring being loaded into tension as said stand moves toward its open position.

18. A stand as defined in claim 1 wherein said top frame planar portion comprises two side frame members and two end frame members interconnected in a generally planar rectangular configuration.

19. A stand as defined in claim 2 further comprising at least one stop member attached to each second member for contacting said first member limiting the pivoting movement there between during opening of said stand so that said top planar portion is held in said generally horizontal position.

20. A collapsible rolling stand for an elongated normally horizontally oriented heavy object attached thereto, said stand being supported by a ground surface

and having a front end portion and a rear end portion, and being capable of being manipulated between open and closed positions, wherein the object is generally vertically oriented when the stand is closed, and wherein the object is generally horizontally oriented when the stand is in its open position, said stand comprising:

a top frame portion generally defining a plane and being configured to have the object secured thereto, said top frame portion being oriented in a generally horizontal position when said stand is in its open position and a generally vertical position when said stand is moved to its closed position;

a main side strut on each side of said stand pivotally connected to a rear portion of said top frame portion, said side strut extending toward the ground surface and having a ground engaging front contact point;

a rear leg having a pivotal connection for connecting to each said side strut at a point intermediate the ends of said main side strut, each rear leg having a wheel connected to a distal end portion of said rear leg and an extension located forwardly of said pivotal connection at a predetermined angle relative to the lengthwise direction of said rear leg;

a link member pivotally attached to the distal end of said rear leg extension and to said frame portion;

at least one handle connected to one of said top frame portion or said main side struts;

a locking mechanism for releasably holding said stand in at least the closed position;

wherein when said stand is in its closed position, actuating said locking mechanism enables said rear leg to pivot about said pivotal connection causing the weight of the object to move said wheel a short distance away from said top frame portion, further movement of said stand in the rearward direction causing said rear leg and wheel to rotate toward the rear of said stand to the open position where the object is oriented in a horizontal position.

21. A stand as defined in claim 1 wherein said top frame includes an outwardly directed transverse extension at the front end thereof, said extension having a slot on each side thereof for receiving an end of a link member of said folding mechanism, said folding mechanism further comprising:

said first members are located on each side of said stand and are operatively connected to and pivotable relative to a rear portion of said top frame portion;

each of said second members having a pivot connection to one of said first members at a point intermediate the ends of said first member, each second member having one of said wheels connected to a lower end portion thereof, an upper end thereof extending upwardly beyond said pivot connection;

a link member having one end pivotally attached to said upper end of said second member and an opposite end pivotally connected to and slidable in said top frame extension slot;

an over center stop member attached to one of each link member and second member that are connected together for limiting the pivoting movement

therebetween during opening of said stand so that said top planar portion is held in said generally horizontal position;

a handle connected to one of said top frame planar portion or said first members;

a locking mechanism for releasably holding said stand in at least the closed position;

wherein when said stand is in its closed position, actuating said locking mechanism enables said second member to pivot about said pivot connection causing the weight of the object to move said wheels a short distance away from said top frame portion, further movement of said stand in the rearward direction causing said second members and wheel to rotate toward the rear of said stand and said opposite end of said link member to slide outwardly in said slot as said stand moves to its open position where the top frame portion is oriented in said substantially horizontal position.

22. A stand as defined in claim 1 wherein said folding mechanism further comprises:

said first members are located on each side of said stand and are operatively connected to and pivotable and slidable between two positions relative to a rear portion of said top frame planar portion;

a locking mechanism for at least one first member for releasably holding said first member from slidably moving relative to said rear portion of said top frame planar portion;

each of said second members having a pivot connection to one of said first members at a point intermediate the ends of said first member, each second member having one of said wheels connected to a lower end portion thereof and an upper end portion extending upwardly of said pivot connection;

a link member having one end pivotally attached to said upper end portion of each said second member and an opposite end pivotally attached to said top frame planar portion;

an over center stop member attached to one of each link member and second member that are connected together for limiting the pivoting movement therebetween during opening of said stand so that said top planar portion is held in said generally horizontal position;

a handle connected to one of said top frame planar portion or said first members;

wherein when said stand is in its closed position, actuating said locking mechanism enables said second member to pivot about said pivot connection causing the weight of the object to move said wheels a short distance away from said top frame planar portion, further movement of said stand in the rearward direction causing said second members and wheel to rotate toward the rear of said stand to the open position where the top frame planar portion is oriented in said substantially horizontal position.

23. A stand as defined in claim 22 wherein said first and second positions are the closed and open positions of said stand.



24. A stand as defined in claim 1 wherein said top frame includes an outwardly directed transverse extension at the front end thereof, said extension having a slot on each side thereof for receiving an end of a link member of said folding mechanism, said folding mechanism further comprising:

said first members are located on each side of said stand and are operatively connected to and pivotable relative to a rear portion of said top frame portion;

each of said second members having a pivot connection to one of said first members at a point intermediate the ends of said first member, each second member having one of said wheels connected to a lower end portion thereof, an upper end thereof extending upwardly beyond said pivot connection;

a pair of first link members, each having a first end pivotally attached to said upper end of said second member and a second end pivotally connected to a first end of a second link member;

a pair of second link members, each having a first end pivotally connected to said second end of said first link member and to the first end of a third link member and a second end pivotally connected to and slidable in said top frame extension slot;

a pair of third link members, each having a first end pivotally connected to said first end of said second link member and pivotally connected to said second end of said first link member, said third link member having a second end pivotally connected to said ground contact end of said first member;

a handle connected to one of said top frame planar portion or said first members;

a locking mechanism for releasably holding said stand in at least the closed position;

wherein when said stand is in its closed position, actuating said locking mechanism enables said second members to pivot about said pivot connection causing the weight of the object to move said second members and wheels away from said top frame, said pivoting movement of second members in the rearward direction causing said upper end of said second members to move said first link members forwardly and move the first end of said second and third link members forwardly while simultaneously moving said second end of said second link members downwardly in said slots as said stand moves to its open position where the top frame planar portion is oriented in said substantially horizontal position.

25. A stand as defined in claim 1 wherein said folding mechanism further comprises:

said first members are located on each side of said stand and are operatively connected to and pivotable relative to a rear portion of said top frame portion;

each of said second members having a pivot connection to one of said first members at a point intermediate the ends of said first member, each second member having one of said wheels connected to a lower end portion thereof, an upper end thereof extending upwardly beyond said pivot connection;

a pair of first link members, each having a first end pivotally connected to and slidable relative to said upper end of said second member and a second end pivotally connected to first end portion of a second link member;

a pair of second link members, each having a first end pivotally connected to said second end of said first link member and to the first end of a third link member and a second end pivotally connected to said top frame;

a pair of third link members, each having a first end pivotally connected to said first end of said second link member and pivotally connected to said second end of said first link member and to said second end of said first link member, said third link member having a second end pivotally connected to said ground contact end of said first member;

a handle connected to one of said top frame planar portion or said first members;

a locking mechanism for releasably holding said stand in at least the closed position;

wherein when said stand is in its closed position, actuating said locking mechanism enables said second members to pivot about said pivot connection causing the weight of the object to move said second members and wheels away from said top frame, said pivoting movement of said second member in the rearward direction causing said upper end of said second members to move said first link members forwardly and move the first end of said second and third link members forwardly while simultaneously sliding said upper end of said second members rearwardly along said first link member as said stand moves to its open position where the top frame planar portion is oriented in said substantially horizontal position.

26. A stand as defined in claim 1 wherein said top frame has a pair of horizontal slots located on opposite sides of the front thereof, said folding mechanism further comprises:

said first members are located on each side of said stand and are operatively connected to and pivotable relative to a rear portion of said top frame planar portion, said first members having an enlarged portion at an intermediate point along their length;

each of said second members having a pivot connection to one of said first members at or near said enlarged portion of said first member, each second member having one of said wheels connected to a rearward end portion thereof and a first toothed gear fixed thereto, said first gear having a center opening through which a first pivot pin is attached to said first member, thereby enabling said second member and first toothed gear to pivot around said pivot pin;

a pair of link members, each having a first end pivotally attached to a second pin secured to said first member at or near said enlarged portion and a second end pivotally attached to said top frame, each link member having a second toothed gear fixed thereto, said second gear having a center opening through which a second pivot pin is attached to said first member, thereby enabling said second member and second gear to pivot around said second pivot pin, each of said link members having a second end pivotally connected to said top frame slot;

said teeth of first and second gears engaging each other;

a handle connected to one of said top frame planar portion or said first members;

a locking mechanism for releasably holding said stand in at least the closed position;

wherein when said stand is in its closed position, actuating said locking mechanism enables said second member to pivot about said pivot connection causing the weight of the object to move said wheels away from said top frame planar portion, the movement of said stand in the rearward direction causing said second members and wheels to rotate toward the rear of said stand toward the open position, said engaged gears causing said link members to rotate in a direction opposite the rotation of said second member to the open position where the top frame planar portion is oriented in said substantially horizontal position.

27. A collapsible rolling stand for use with an elongated normally horizontally oriented heavy object attached thereto, said stand being supported by a ground surface and having a front end portion and a rear end portion, and being capable of being manipulated between open and closed positions, wherein the object is generally vertically oriented when the stand is closed, and wherein the object is generally horizontally oriented when the stand is in its open position, said stand comprising:

a top frame portion being configured to have the object secured thereto, said top frame portion being oriented in a generally horizontal position when said stand is in its open position and a generally vertical position when said stand is moved to its closed position;

a folding mechanism supporting said top frame portion, including at least one handle operatively connected to one end portion of a pair of spaced apart elongated

first members that have opposite end portions that include points that contact the ground surface and a pair of spaced apart second members each having wheels for enabling a user to roll said stand on the ground surface, said first and second members being pivotally connected to one another and configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to further separate said forward contact point from said rear wheels and move said stand from said closed position to said open position wherein said top frame portion is substantially horizontal, said first and second members being configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to move said stand from said open position to said closed position wherein said top frame planar portion is in a generally vertical orientation.

28. A collapsible rolling stand for use with an elongated normally horizontally oriented object attached thereto, said stand being supported by a ground surface and having a front end portion and a rear end portion, and being capable of being manipulated between open and closed positions, wherein the object is generally vertically oriented when the stand is moved to its closed position, and wherein the object is generally horizontally oriented when the stand is in its open position, said stand comprising:

a folding mechanism supporting the object, including at least one handle operatively connected to one end portion of a pair of spaced apart first members that have opposite end portions that include points that contact the ground surface ends and a pair

of spaced apart second members each having wheels for enabling a user to roll said stand on the ground surface, said first and second members being pivotally connected to one another and configured so that the weight of the object provides a substantial portion of the necessary force needed to pivot said first and second pairs of members to further separate said forward contact point from said rear wheels and move said stand from said closed position to said open position wherein the object is substantially horizontal.

## **EVIDENCE - APPENDIX**

None.



## **RELATED PROCEEDINGS- APPENDIX**

None.